

[0014] FIG. 6 shows an exemplary computer system platform upon which embodiments of the present invention may be implemented.

DETAILED DESCRIPTION OF THE INVENTION

[0015] Reference will now be made in detail to embodiments of the present invention, examples of which are illustrated in the accompanying drawings. While the present invention will be discussed in conjunction with the following embodiments, it will be understood that they are not intended to limit the present invention to these embodiments alone. On the contrary, the present invention is intended to cover alternatives, modifications, and equivalents which may be included within the spirit and scope of the present invention as defined by the appended claims. Furthermore, in the following detailed description of the present invention, numerous specific details are set forth in order to provide a thorough understanding of the present invention. However, embodiments of the present invention may be practiced without these specific details. In other instances, well-known methods, procedures, components, and circuits have not been described in detail so as not to unnecessarily obscure aspects of the present invention.

Notation and Nomenclature

[0016] Some portions of the detailed descriptions which follow are presented in terms of procedures, logic blocks, processing and other symbolic representations of operations on data bits within a computer memory. These descriptions and representations are the means used by those skilled in the data processing arts to most effectively convey the substance of their work to others skilled in the art. In the present application, a procedure, logic block, process, or the like, is conceived to be a self-consistent sequence of steps or instructions leading to a desired result. The steps are those requiring physical manipulations of physical quantities. Usually, although not necessarily, these quantities take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated in a computer system.

[0017] It should be borne in mind, however, that all of these and similar terms are to be associated with the appropriate physical quantities and are merely convenient labels applied to these quantities. Unless specifically stated otherwise as apparent from the following discussions, it is appreciated that throughout the present invention, discussions utilizing the terms such as “accepting,” “accessing,” “adding,” “analyzing,” “applying,” “assembling,” “assigning,” “calculating,” “capturing,” “combining,” “comparing,” “collecting,” “creating,” “defining,” “depicting,” “detecting,” “determining,” “displaying,” “establishing,” “executing,” “generating,” “grouping,” “identifying,” “initiating,” “interacting,” “modifying,” “monitoring,” “moving,” “outputting,” “performing,” “placing,” “presenting,” “processing,” “programming,” “querying,” “removing,” “repeating,” “sampling,” “sorting,” “storing,” “subtracting,” “transforming,” “using,” or the like, refer to the action and processes of a computer system, or similar electronic computing device, that manipulates and transforms data represented as physical (electronic) quantities within the computer system’s registers and memories into other data similarly represented as physical quantities within

the computer system memories or registers or other such information storage, transmission or display devices.

EMBODIMENTS OF THE INVENTION

[0018] FIG. 1 shows diagram 100 of an exemplary display of graphical objects on an exemplary multi-component display in accordance with one embodiment of the present invention. As shown in FIG. 1, multi-component display (MCD) 110 comprises rear display screen 120, front display screen 130 and optical component 140 disposed between display screens 120 and 130. Graphical objects 150 may be displayed on rear display screen 120 for viewing by observer 160, where observer 160 may comprise a human eye, an electrical and/or mechanical optical reception component (e.g., a still-image camera, moving-image camera, etc.), etc. It should be appreciated that optical component 140 and/or front display screen 130 may be semi-transparent and transmit sufficient light, in one embodiment, to enable viewing of graphical objects (e.g., 150) by observer 160.

[0019] Graphical objects 150 may comprise any visual display of rear display screen 120. In one embodiment, graphical objects 150 may comprise still images. The still images may comprise stand-alone images, or alternatively, frames of a video or other moving imagery. Alternatively, graphical objects 150 may comprise frame-less moving imagery. Additionally, graphical objects 150 may comprise multiple distinct images, contiguous portions of the same image, non-contiguous portions of the same image, etc.

[0020] As shown in FIG. 1, display screens 120 and/or 130 may comprise a liquid crystal display (LCD) matrix in one embodiment. Alternatively, display screens 120 and/or 130 may comprise organic light emitting diode (OLED) displays, transparent light emitting diode (TOLED) displays, cathode ray tube (CRT) displays, field emission displays (FEDs), field sequential display or projection displays. And in other embodiments, display screens 120 and/or 130 may comprise other display technologies.

[0021] Interstitial layers (e.g., optical component 140) may be disposed between display screens 120 and 130 for altering the display of graphical objects on the MCD (e.g., 110) and/or attributes of the MCD (e.g., 110) itself. For example, optical component 140 may comprise a filter (e.g., a spatial filter, etc.), a diffuser (e.g., holographic diffuser, optical component having a Gaussian profile, etc.), a polarizer, a lens, a touch-screen, or a combination thereof. Alternatively, optical component 140 may comprise a micro-optical structure. Thus, the type and/or characteristics of component 140 may be varied to change how graphical objects (e.g., 150) are displayed on MCD 110. For example, optical component 140 may affect Moiré interference, sharpness or blurriness, tonal balance, color balance, etc., associated with MCD 110 and/or the display of graphical objects (e.g., 150) on MCD 110.

[0022] In addition to or in place of varying attributes of optical component 140, the display of graphical objects on MCD 110 may also be adjusted by varying the position of optical component 140 with respect to rear display screen 120 and/or front display screen 130. As shown in FIG. 1, rear display screen 120 is located at position 125, front display screen is located at position 135, and optical component 140 is located at position 145. Optical component 140 may be shifted toward either rear display screen 120 (e.g., as indicated by optical component outline 140a at position 145a) or front display screen 130 (e.g., as indicated by optical component outline 140b at position 145b) to affect Moiré interfer-